

# A Quasi-Experimental Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Diarrhea among the Mothers at Selected Urban Community in Thatipur Gwalior

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## ABSTRACT

**Background:** Diarrhoea as the passage of three or more loose or liquid stools per day (or more frequent passage than is normal for the individual). Diarrhoeal disease is the second leading cause of death in children under five years old, and is responsible for killing around 525 000 children every year. Diarrhoea can last several days, and can leave the body without the water and salts that are necessary for survival. **Objective:** The study aimed to assess the effectiveness of structured teaching programme on knowledge regarding diarrhoea among the mothers at selected urban community in Thatipur Gwalior M.P. **Methods:** In this study quasi-experimental with one group pre-test post- test design was adopted. 30 Mothers of under-five children was taken by Purposive sampling technique. Structured interview developed to measure the knowledge of mother regarding the diarrhoea. Data was collected by administering structured interview before and after the administration of STP. **Result:** It revealed that post test score 24.5 (82.22%) which is higher than pretest score 16.86 (56.20%), the actual gain of knowledge score is 26.02% and computed 't' value ( $t_{29}=15.41$ ) is more than tabled value ( $t_{29}=2.05$ ) at the level of 0.05. Therefore it indicated highly significant difference and effectiveness of structured teaching programme through lesson plan and booklet, in increasing the knowledge of mothers of under five children regarding diarrhoea. **Conclusion:** The study can be concluded that the Structure teaching programme was effective in improving the knowledge of the mothers under five children.

**KEYWORDS:** Structure teaching programme, Effectiveness, Knowledge, Diarrhoea

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## INTRODUCTION

Diarrhoea is the passage of loose or liquid stools more frequently than is normal for the individual. It is primarily a symptom of gastrointestinal infection. Diarrhoea is a major killers disease in under 5 children in India and thus important public health problem. The alarming suction is created by delay in initiation of treatment and in educate hydration resulting in high morbidity, Diarrhoeal diseases cause a heavy economic burden on a Health service as well because one third of total pediatric admissions are due to diarrhoeal disease and to 17% of all death indoor pediatric patient are diarrhoea related. Much attention has been given over the last decade to acute diarrhoea and its management by home available fluids oral rehydration salt solution and intravenous fluids, but it has not made much impact in the scenario. ( Indian pediatric, March 2004). According to a conservative estimate almost 500 million children suffer from acute diarrhoea annually. Of them, 5million die every year. In India alone nearly 1.5million children die due to acute diarrhoea every year. Diarrhoea continuous to plague

the developing world, resulting in more than 3 million death children specially those who are malnourished remain to a greater risk. More than 1.5million episodes of diarrhoea have been reported in children below 5 years resulting in over 3 million deaths. (The Indian Journal of pediatrics, Oct.2004). Diarrhoea can also spread from person to person, aggravated by poor personal hygiene. Food is another major cause of diarrhoea when it is prepared or stored in unhygienic conditions.

Key measures to reduce the number of cases of diarrhoea include, access to safe drinking water, improved sanitation, Good personal and food hygiene and health education about how infections spread.

Key measures to treat diarrhoea include, giving more fluids than usual, including oral rehydration salts solution, to prevent dehydration, continue feeding and consulting a health worker if there are signs of dehydration or other problems.

During posting to K D J hospital, Gwalior investigator found that Morar in Gwalior has still high prevalence of diarrhoea in children under five children, near about 28 children was admitted within month of June 2006 and 2 children brought dead due to dehydration related to diarrhoea. The factor related with higher prevalence of diarrhoea were lack of knowledge of mother, lack of exclusive breast feeding and number of older siblings more than two in family and the investigator during her contact with families in the community noticed that there still child die due to diarrhoea even though the literacy rate has increased, still there is lack of knowledge about causes, prevention, management of diarrhoea. Therefore, the investigator feels that there was strong need to assess the knowledge regarding diarrhoea in order to motivate mothers to follow right management and prevention of diarrhoea. The study will also help the nurse to understand proper management and prevention of diarrhoea and provide effective knowledge based comprehensive care to child.

#### PROBLEM STATEMENT:

A quasi-experimental study to assess the effectiveness of structured teaching programme on knowledge regarding diarrhoea among the mothers at selected urban community in Thatipur Gwalior.

#### OBJECTIVES:

1. To assess the knowledge regarding Diarrhoea among the mothers.
2. To find association between demographic variables and pre-test knowledge score.
3. To evaluate the effectiveness of structured teaching programme regarding diarrhoea among the mothers.

#### HYPOTHESIS:

1. There will be significant association between pre-test knowledge scores and selected demographic factors.
2. The mean post-test knowledge score of the mother will be significantly higher than the mean pre-test knowledge score.

#### OPERATIONAL DEFINITIONS

**Structured teaching programme-** It is planned teaching programme for improvement of knowledge regarding diarrhoea, its prevention, causes and management through information booklet, charts and demonstration.

**Mothers-** Mothers of selected community those who are having child under five years of age.

**Diarrhoea-** Watery loose motion 4 to 5 times in a day.

#### MATERIAL AND METHOD:

##### Research approach:

1. Quantitative research approach.

##### Research design:

Quasi-Experimental with one group pre-test post- test design.

##### Variables:

- **Dependent variable-** Knowledge of mother regarding diarrhoea
- **Independent variable-** Structured teaching through lesson plan and booklet

##### Research setting:

- The study was conducted in Morar in Gwalior

##### Population:

- **Target population-** Mother of underfive children.

- **Accessible population-** Mothers of underfive children at selected urban community in Gwalior.

##### Sample:

Mother those who have under-fives child at selected urban community in Gwalior.

##### Sample size: 30

##### Sample techniques:

Purposive sampling technique

##### Criteria for sample selection:

##### Inclusion criteria of the present study were-

1. Mothers of under-fives child.
2. Mothers who are available at selected urban community of Chandarwani Naka, Gwalior
3. Mothers who could speak and respond in Hindi or English.

##### Exclusion criteria of the present study were-

1. Mothers who have child above five years.
2. Mothers who were sick at the time of data collection.

##### Tool and method of data collection:

##### Section A. Demographic variable.

##### Section B. Structured interview schedule

**Selection and development of tool:** In present study structured interview schedule used to collect data.

1. Pre-test was conducted by administration of structured interview to measure the knowledge of mother regarding the diarrhoea on first day.
2. Implementation or administration of structured planned teaching through lesson plan and booklet on first day.
3. Post-test was conducted using the same tool on the seventh day.

The tool was developed by internet search and review of literature, which provided adequate content area and information and consultation and discussion with experts from nursing, Paediatrics.

**Description of the tool:** The tool comprised of two sections:

##### SECTION A

Comprised of demographic data with ten items i.e. age of mother in years, education, family planning, source of drinking water, type of latrine used, type of house, total No. of children, dietary habit, income per month and occupation.

**SECTION B:** Consists of question regarding, Causes and transmission, sign and symptom, management and prevention of diarrhoea. There are total 28 questions.

Each item in the tool consisted of multiple-choice answers the respondents were requested to give answer and interviewer place (✓) against one single answer for each question and each question carried one score. The maximum total score of the questionnaire was 28. Score was graded as follows-

<b>Good-</b>	<b>20-28 (70%-100%)</b>
<b>Average-</b>	<b>10-19 (36%-68%)</b>
<b>Poor-</b>	<b>0-9 (0%-32%)</b>

**Reliability of tool:** Pretesting and reliability of the tool were carried out among six subjects at urban community settings in Gwalior. The tool was found to be clear and

understandable. The mothers answer the tool in approximately 15-20 minutes. The reliability obtained by Karl Pearson's co-relation co-efficient formula was 0.92 which proved that the tool was reliable.

**Data collection procedure-** Before collecting the data, permission was obtained from the concerned authority. Keeping in mind the ethical aspect of research, the data was collected after obtaining the informed consent of the sample. Pre-test was conducted followed by administration of STP. The duration of the session was 30 minutes. Post-test was conducted to evaluate the effectiveness of structure teaching programme.

#### Ethical consideration:

Ethical Clearance will be obtained from the in University or College ethical committee. Informed written consent will be

#### RESULTS:

taken from the study subjects after giving proper explanation of the purpose of the study. Informed consent will be developed in English as well as in Hindi language. Confidentiality and anonymity of the subjects will be maintained throughout the study.

#### Plan for data analysis:

- Baseline Performa would be analyzed using descriptive statistics i.e. frequency and percentage.
- Knowledge assessment regarding effectiveness of planned teaching programmes by using descriptive statistics (frequency, percentages mean) and inferential statistics (paired and unpaired t – test).

To find association between pre-test and post-test knowledge and selected demographic variables using chi-square test.

**Table-1 Distribution of subjects according to their demographic variables**

S.NO	Demographic variables	Frequency	Percentage
1.	<b>Age of mothers in Years</b>		
	20-24 years	8	26.6%
	25-28 years	12	40%
	29-32 years	5	16.7%
	Above 32 years	5	16.7%
2.	<b>Educational Level</b>		
	Illiterate	11	37%
	Primary	16	53%
	High School	3	10%
	Higher secondary or Above	0	0%
3.	<b>Occupation</b>		
	House wife	26	87%
	Sedentary Worker	4	13%
	Moderate worker	0	0%
	Heavy Worker	0	0%
4.	<b>Family Income per month</b>		
	Less than 3000	26	87%
	3001-7000	4	13%
	7001-10000	0	0%
	Above 10000	0	0%
5.	<b>Source of drinking water</b>		
	Tap water	30	100%
	Tube well	0	0%
	Well	0	0%
	Any other (specify)	0	0%
6.	<b>Type of Latrine used</b>		
	Open field	8	27%
	Sanitary Latrine	22	73%
	By dug of pit	0	0%
	Any other(specify)	0	0%
7.	<b>Type of House</b>		
	Kutcha House	6	20%
	Pucca House	22	80%
8.	<b>Total number of children</b>		
	One	5	17%
	Two	7	23%
	Three	7	23%
	More than 3	11	37%
9.	<b>Dietary Habit</b>		
	Vegetarian	0	0%
10.	<b>Non-Vegetarian</b>	30	100%
	<b>Family planning method adopted</b>		
	Permanent Method	4	13%
	Temporary Method	3	10%
	No Method Adopted	23	77%

**Table1.**described about the frequency, percentage distribution of demographic variable. Distribution of the subject by age revealed that majority of the subject belonged to 25-28 years (40%)and 5 mothers are 29 years (16.7%). With regards to Education level of mothers are 11(37%) Illiterate,16(53%) mothers are primary and only 3(10%) are High school. Regarding Occupation 26(87%) mothers are House wife and 4(13%) are Sedentary worker.

26(87%) mothers have Family income per month less than 3000 and 4(13%) mothers have 3001-7000 income per month.As per the findings of the study,source of drinking water was 30(100%). 8 (27%) mothers used open field and 22 (73%)mothers having sanitary Latrine in their house.6(20%) mothers lived in Kutcha House and 24(80%) having Pucca House. Maximum mother 11(37%) has more than 3 children and minimum 5(17%) have 1 child.All mothers are Non-vegetarian. 4(13%) Maximum mother 23(77%) not adopted family planning method and minimum 4(13%) had permanent method.

**Table-2 Frequency and percentage distribution of pre-test knowledge score of Mothers of under five.**

Pre-test Knowledge score	Frequency	Percentage
0-9 Poor	02	6.67 %
10-19 Average	22	73.33 %
20-28 Good	06	20%

The above depicted the frequency and score most of the sample i.e.22(73.33%) scored average knowledge and only 2 sample (Mother of under5) scored poor knowledge

**Table 3-Mean, mean percentage and standard deviation of pre-test scores**

Pre-test Mean	Mean %	Standard deviation
16.86	56.2 %	3.2118

Table - 3 depicts the pre-test mean 16.86, and mean percentage 56.2 % and standard Deviation is 3.2118.

**Table-4 Analysis of significant difference between pretest and post test knowledge regarding mothers of under five children. N=30**

Test	Mean	Mean percentage	SD	Actual gain of knowledge	Mean difference	't' value
Pre-test	16.86	56.20%	3.2118	26.02%	7.81	15.41**
Post-test	24.67	82.22%	0.9092			

**\*\* Highly significant p<0.001**

This table-4 depicted mean post test score24.5(82.22%) which is higher than pretest score 16.86(56.20%), the actual gain of knowledge score is 26.02% and dispersion of pretest score SD 3.2118 is more than that of their post test score SD 0.9092 and computed 't' value ( $t_{29}=15.41$ ) is more than tabled value ( $t_{29}=2.05$ ) at the level of 0.05. Thus it indicate significant difference and effectiveness of structured teaching programme through lesson plan and booklet, in increasing the knowledge of mothers of under five children regarding diarrhoea.

**Table 5.Chi-square value of pretest knowledge score (Good, Average, Poor) association with selected demographic variables.**

Selected variables	Pretest knowledge score			df	x2 value
	Good	Average	Poor		
<b>Age of mothers in Years</b>					
20-24 years	4	4	0	<b>6</b>	12.05 (NS)
25-28 years	0	11	1		
29-32 years	1	4	0		
Above 32 years	1	3	1		
<b>Educational Level</b>					
Illiterate	1	9	1	<b>4</b>	2.49 (NS)
Primary	3	12	1		
High School	2	1	0		
Higher secondary or Above	0	0	0		
<b>Occupation</b>					
House wife	2	20	4	<b>2</b>	28.05* (S)
Sedentary Worker	0	2	2		
Moderate worker	0	0	0		
Heavy Worker	0	0	0		
<b>Family Income per month</b>					
Less than 3000	2	19	5	<b>2</b>	2.22 (NS)
3001-7000	0	3	1		
7001-10000	0	0	0		
Above 10000	0	0	0		
<b>Type of Latrine used</b>					
Open field	2	6	0	<b>2</b>	2.21 (NS)
Sanitary Latrine	4	16	2		
By dug of pit	0	0	0		
Any other(specify)	0	0	0		



<b>Type of House</b>					5.04 (NS)
Kutcha House	6	16	2		
Pucca House	0	6	0		
<b>Total number of children</b>					12.88* (S)
One	3	2	0		
Two	1	5	1		
Three	1	4	1		
More than 3	0	11	0		
<b>Family palnning metho adopted</b>					7.34 (NS)
Permanent Method	2	2	0		
Temporary Method	0	2	1		
No Method Adopated	4	18	1		

The data represented in Table No.5 shows that computed chi-square value indicated no significant association between pretest test knowledge score and selected demographical variables such as age of mothers, education, family income, type of latrine used and family planning method adopted but significant association between pre test knowledge score and occupation of mothers ( $\chi^2 = 28.05$ ), Total number of children ( $\chi^2 = 12.88$ ).

## DISCUSSION

### Effectiveness of structured teaching programme through lesson plan and booklet on diarrhoea to mothers at selected urban community.

The findings of the present study shows that mean post-test (24.67) knowledge score is higher than mean pre-test knowledge score (16.86). Hence research hypothesis is accepted.

This indicates that structured teaching through lesson plan and booklet is effective in increasing knowledge score of mothers regarding diarrhoea. Nurses need to take more interest and efforts to educate mother regarding diarrhoea through planned teaching or booklet is effective.

The above findings is supported by the study conducted by Alice (2005) at Mangalore to evaluate the effectiveness of information booklet for care giver regarding the care of patients receiving antipsychotic drugs in selected hospital, after administration of SIM the pre-test score (13.78) and post-test knowledge score (22.93) and the 't' value (13.4) was highly significant ( $p < 0.01$ ) thus SIM was effective in increasing the knowledge level of family caregiver.

## CONCLUSION:

Conclusions drawn from present study was as follows-

- Structured teaching through lesson plan and booklet is an effective method Pret-test mean knowledge score of mothers on diarrhoea was (16.86) i.e., 56.20% and post-test mean knowledge score was (24.67) 82.22%.
- There is no significant association between age, education, family income, type of latrine, type of house and family planning with the pretest knowledge score.

## RECOMMENDATIONS:

- The study can be replicated on a larger sample; therefore, findings can be generalized for a larger population.
- A comparative study may be conducted to find out the effectiveness between information booklets and planned teaching programme regarding the same topic.
- A similar study can be replicated with a control group.

- Similar study could be undertaken using other teaching strategies.

**Conflict of interest:** No

**Financial support:** Self

## REFERENCE:

- [1] Bairiwa, K. (2002). Effectiveness of information booklet on cancer risk factors. *The Nursing journal of India*, LXXXIII (10), 227-228.
- [2] Chatterjee, P. (2002). Effectiveness of planned teaching programme on the knowledge of GNM students regarding Breast cancer and Breast self examination. *The Nursing journal of India*, LXXXIII (4), 93-94.
- [3] Clara, J. (2004). Effectiveness of structured teaching on self care of pregnancy induced hypertension among primipara mothers. *Communicating Research* Omayal Achi College of Nursing.39-40.
- [4] Camala,B (2004) evalatutive study to assess effectiveness of structured teaching on prevention and management of diarrhoea among mothers of fewer than fives. *Nursing Research*. Omayal Achi College of Nursing..32
- [5] George,M. (2002). Planned teaching programme on menstrual hygiene. *The Nursing Journal of India*. 3 (1), 6-7.
- [6] Kaur, N. (1998). Planned teaching on early ambulation for undergoing preoperative abdominal surgery patients. *Nurses of India*. (7), 6-8.
- [7] Noronha, J. (1998). Teaching primi gravid women about warning signs in pregnancy using a specially designed information booklet. *The Indian Journal of Nursing and Midwifery*. 1(3), 27-31.
- [8] Rekha(2004).Comprative study the knowledge and practice of mothers on management of diarrhoea. *Nursing Research*. Omayal Achi College of Nursing. 123-124.